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| APPLICATION NO.                 | FILING DATE | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
|---------------------------------|-------------|------------------------|--------------------------|------------------|
| 10/564,485                      | 01/13/2006  | Lysander Chrisstoffels | 13111-00029-US1          | 9881             |
| 23416                           | 7590        | 01/15/2009             | EXAMINER                 |                  |
| CONNOLLY BOVE LODGE & HUTZ, LLP |             |                        | SIMMONS WILLIS, TRACEY A |                  |
| P O BOX 2207                    |             |                        |                          |                  |
| WILMINGTON, DE 19899            |             |                        | ART UNIT                 | PAPER NUMBER     |
|                                 |             |                        | 1619                     |                  |
|                                 |             |                        | MAIL DATE                | DELIVERY MODE    |
|                                 |             |                        | 01/15/2009               | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                      |
|------------------------------|------------------------|----------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b>  |
|                              | 10/564,485             | CHRISSTOFFELS ET AL. |
|                              | <b>Examiner</b>        | <b>Art Unit</b>      |
|                              | TRACEY SIMMONS WILLIS  | 1619                 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 31 October 2008.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.  
 4a) Of the above claim(s) 17-24 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-16 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01132006</u> .  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Status of the Claims***

Applicant's election with traverse of Group I including claims 1-16 in the reply filed on October 7, 2008 is acknowledged. The traversal is on the ground(s) that the Examiner did not provide an alternate method of formation of the product. This is not found persuasive because the inventions were shown to lack a special technical feature over prior art was established in accordance with 37 CFR 1.499.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-24 are pending in the current application, of which claims 1-16 are being considered on their merits. Claims 17-24 are withdrawn from consideration at this time.

This is the first Office Action on the merits of the claims.

### ***Claim Objections***

Claims 3 and 7 are objected to because of the following informalities: the additional component is referred to as (e) when it should be (d) based on the dependency of the claims on claim 1. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph,** as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is rendered indefinite as R<sup>4</sup> is not a defined term within the claims and examiner interprets R<sup>4</sup> to be any hydrocarbon or hydrogen.

Because claims 2-16 depend from indefinite claim 1 and do not clarify the point of confusion, they must also be rejected under 35 U.S.C. 112, second paragraph.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 9 recites the broad recitation "used in an amount from 10 to 90%" and the claim also recites "preferably 20 to 70%" and "in particular 30 to 60%" which is the narrower statement of the range/limitation. It is unclear to Examiner if the "preferred" embodiments cited are included in the claim or not. Claims 10-12 and 14-15 suffer similar deficiencies. Clarification is required.

Claim 15 is rendered indefinite as the abbreviation LT is not a defined term within the claims (not written out previously) and it is unclear what the scope of the claim is.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,134,187 (Aihara).**

Aihara teaches of cationic water-based pigment dispersions comprising N-vinyl-2-pyrrolidone [col 7, line 8] as component (a), vinylic monomers modified with alkyl esters of (meth)acrylic acid [col 3, line 58-60] as component (b), N,N-dimethylaminopropyl(meth)acrylamide [col 6, lines 63-64] as component (c), and acrylic acid monomers [col 7, lines 12 and 52] as the dispersant (D).

**Claims 1, 2, 4-6, 8, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pre-grant Publication 2005/0175572 (Nguyen-Kim et al).**

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Nguyen-Kim teach of cosmetic or pharmaceutical composition comprising a copolymer obtained by free-radical polymerization of at least one  $\alpha,\beta$ -ethylenically unsaturated amide-containing compound [pg 1, par 19 and pg 2, par 22] of identical structure to that of component (a) as stated within claim 1. Component (a) can include N-vinylamides of saturated monocarboxylic acids [pg 3, par 43]. The reference also teaches of free-radical polymerizable  $\alpha,\beta$ -ethylenically unsaturated compounds with cationogenic and cationic groups [pg 3, par 49] equivalent to component (c) as stated within claim 1. Suitable monomers taught include N-vinylimidazole [pg 3, par 53]. The reference further teaches of at least one crosslinker used in the copolymer with 2 or more than 2  $\alpha,\beta$ -ethylenically unsaturated double bonds [pg 4, par 69] which is equivalent to component (b) as stated in the claim. The copolymerization as taught in the reference occurs in the presence of at least one compound of component d [pg 5, par 81] in which d can be copolymers containing acrylic acid [pg 6, par 115]. This component d as taught in the art is the equivalent of the anionic dispersant (D) as cited in claims 1 and 8. Preference is given to the polymerization in water [pg 8, par 164].

Nguyen-Kim further teach of crosslinking monomers that are esters of  $\alpha,\beta$ -ethylenically unsaturated mono carboxylic acids (acrylic acid) and C<sub>1-30</sub> alkanediols (1,2-ethanediol) [pg 4, pars 70 and 71] which is equivalent to the additional component (d). The polymerization is carried out in the presence of a regulator to adjust the molecular weight [pg 8, par 165].

**Claims 1 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pre-grant Publication 2006/0183822 (Nguyen-Kim et al).**

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Nguyen-Kim teach of ampholytic copolymers obtained by free-radical polymerization of at least one  $\alpha,\beta$ -ethylenically unsaturated amide-containing compound [pg 2, pars 23 and 25] of identical structure to that of component (a) as stated within claim 1. The reference also teaches of free-radical polymerizable  $\alpha,\beta$ -ethylenically unsaturated compounds with cationogenic and cationic groups [pg 2, par 22] equivalent to component (c) as stated within claim 1. The reference further teaches of at least one crosslinker used in the copolymer with 2 or more than 2  $\alpha,\beta$ -ethylenically unsaturated double bonds [pg 6, par 94] which is equivalent to component (b) as stated in the claim. The copolymer solution can be converted to powder form by drying [pg 11, par 231].

**Claims 1, 4, 5-6, and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 7,125,926 (Satoh et al).**

Satoh teach of surface treatment agents with excellent soil releasability and high transparency, the composition comprised of hydrolysable metal alkoxides, fluoro-containing compounds, and an adhesion improving agent. Satoh also teaches of copolymerizable components within the adhesion improving agent to include vinylimidazole [col 12, line 53] (component (c) in the instant claims), maleic acid [col 12, line 55] (component (D) in the instant claims), and N-vinyl lactams [col 14, line 4] (component (a) in the instant claims) that can be used alone or in combination [col 14, line 14]. The composition can also include a crosslinking

agent such as N,N-methylenebisacrylamide [col 25, line 43] (component (b) in the instant claims).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 and 9-12 are rejected under 35 U.S.C. 103(a) as being obvious over U.S.**

**Pre-grant Publication 2005/0175572 (Nguyen-Kim et al).**

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Nguyen-Kim teach of cosmetic or pharmaceutical composition comprising a copolymer obtained by free-radical polymerization of 0 to 85% of at least one  $\alpha,\beta$ -ethylenically unsaturated amide-containing compound [pg 1, par 19 and pg 2, par 22] of identical structure to that of component (a) as stated within claim 1. The reference also teaches of 0-40% free-radical polymerizable  $\alpha,\beta$ -ethylenically unsaturated compounds with cationogenic and cationic groups [pg 2, par 23 and pg 3, par 49] equivalent to component (c) as stated within claim 1. The reference further teaches of at least one crosslinker (0.01 to 10%) used in the copolymer with 2 or more than 2  $\alpha,\beta$ -ethylenically unsaturated double bonds [pg 4, par 69] which is equivalent to component (b) as stated in the claim. The copolymerization as taught in the reference occurs in the presence of at least one compound of component d [pg 5, par 81] in which d can be copolymers containing acrylic acid [pg 6, par 115]. This component d as taught in the art is the equivalent of the anionic dispersant (D) as cited in claim 1. The amount used is 1 to 25 wt% [pg 5, par 82]. Preference is given to the polymerization in water [pg 8, par 164].

One of ordinary skill in the art at the time of the invention would have been motivated to optimize the amounts of polymers in the copolymer to obtain the desired affinity of the copolymer to the hair for maximum penetration, to create optimum hold in humid conditions when styling, and to provide a good feel to hair without tackiness to the touch [pg 1, pars 4 and 5]. Therefore the invention as a whole would have been *prima facie* obvious to one of ordinary skill at the time it was made.

**Claims 1, 3, and 7 are rejected under 35 U.S.C. 103(a) as being obvious over U.S.**

**Pre-grant Publication 2005/0175572 (Nguyen-Kim et al).**

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Nguyen-Kim teach of ampholytic copolymers obtained by free-radical polymerization of at least one  $\alpha,\beta$ -ethylenically unsaturated amide-containing compound [pg 2, pars 23 and 25] of identical structure to that of component (a) as stated within claim 1. The compounds are chosen from monoethylenically unsaturated carboxylic acids, sulfonic acids, phosphonic acids and mixtures, thereof [pg 3, par 46]. The reference also teaches of free-radical polymerizable  $\alpha,\beta$ -ethylenically unsaturated compounds with cationogenic and cationic groups [pg 2, par 22] equivalent to component (c) as stated within claim 1. The reference further teaches of at least one crosslinker used in the copolymer with 2 or more than 2  $\alpha,\beta$ -ethylenically unsaturated double bonds [pg 6, par 94] which is equivalent to component (b) as stated in the claim.

Nguyen-Kim further teach of a free-radically polymerizable  $\alpha,\beta$ -ethylenically unsaturated double bond with anionogenic and/or anionic group [pg 2, par 21], which is component (e, as cited).

The pH of the medium for copolymer preparation is within range of 5.5 to 8.0 [pg 3, par 43]. One of ordinary skill in the art at the time of the invention would have been motivated to optimize the pH of the copolymer to obtain the purest copolymer with minimal residual monomers [pg 11, par 229]. Therefore the invention as a whole would have been *prima facie* obvious to one or ordinary skill at the time it was made.

**Claim 15 is rejected under 35 U.S.C. 103(a) as being obvious over Nguyen-Kim as applied to claims 1 and 9-12 above, and further in view of U.S. Patent 5,225,478 (Beckerle et al).**

The teachings of Nguyen-Kim are as stated above. Nguyen-Kim does not teach of the light transmittance (LT) of the polymer.

Beckerle teach of polymer powders obtained by atomizing polymer dispersions in which the copolymers are of acrylates which may contain styrene [col 2, lines 56-57]. Beckerle further teach that the light transmittance for such dispersions is typically less than 20% [col 2, lines 62-63].

One of ordinary skill in the art at the time of the invention would have been motivated to optimize the light transmittance of the copolymers by estimate the mean particle size of the copolymers. Therefore the invention as a whole would have been *prima facie* obvious to one of ordinary skill at the time it was made.

***Conclusion***

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRACEY SIMMONS WILLIS whose telephone number is (571)270-5861. The examiner can normally be reached on Mondays to Fridays from 8:30 am to 5:30 pm. The examiner can also be reached on alternate Fridays from 8:30 am to 12:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at (571)272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. S.W./

Examiner, Art Unit 1619

/Lora E Barnhart/

Primary Examiner, Art Unit 1651